Refuting fake news on social media: nonprofits, crisis response strategies and issue involvement

Michail Vafeiadis
Auburn University, Auburn, Alabama, USA
Denise S. Bortree, Christen Buckley and Pratiti Diddi
Donald P. Bellisario College of Communications, Pennsylvania State University, University Park, Pennsylvania, USA, and
Anli Xiao
Texas A&M University, Corpus Christi, Texas, USA

Abstract
Purpose – The dissemination of fake news has accelerated with social media and this has important implications for both organizations and their stakeholders alike. Hence, the purpose of this study is to shed light on the effectiveness of the crisis response strategies of denial and attack in addressing rumors about consumer privacy when non-profit organizations are targeted on social media.

Design/methodology/approach – To test the hypotheses, a 2 (response type: denial vs attack) × 2 (privacy concerns: low vs high), between-group online experiment was conducted via Qualtrics.

Findings – The results indicated that one’s involvement level in the issue determines the effectiveness of the crisis response strategy. Data showed that attacking the source of fake news (as a crisis response) reduces the message’s credibility more than denying fake news. Furthermore, highly involved individuals are more likely to centrally process information and develop positive supportive intentions toward the affected non-profit brand. High issue involvement also predicted organizational and response credibility. Conversely, an attack rebuttal message increased the credibility of the circulated malicious rumors for low involved individuals.

Research limitations/implications – The findings suggest that issue involvement plays a key role in message perceptions of false information regarding consumer privacy in social media.

Practical implications – Practically, this study offers insights for organizations that are developing response strategies in the current environment of fake news. Findings from this study suggest that organizations need to consider the degree to which audiences are currently involved in an issue before deciding how aggressively to respond to perpetrators of fake news.

Originality/value – The present study examines the intersection of fake news and crisis management in the non-profit sector, with an emphasis on various response strategies and issue involvement. This is one of the first attempts to experimentally investigate how social media strategies can defend and protect non-profit reputation in the fake news era.

Keywords – Fake news, Crisis response strategies, Crisis management, Social media, ELM, Information processing, Brand image, Reputation, Consumer privacy

Paper type – Research paper

The speed through which information disseminates online, along with the pervasiveness of social media, has accelerated the transmission of fake news. The propagation of fake news is attributed either to the financial gain that derives from clickbait or to the promotion of a political agenda to muster voters’ support (Osatuyi and Hughes, 2018). A recent study analyzing data from 126,000 stories on Twitter found that fake news stories spread faster than real ones and can elicit feelings of fear, disgust and surprise (Vosoughi et al., 2018). Even more alarmingly, a survey of 3,015 adults in the USA found that 75 per cent of Americans who have encountered fake news tend to believe them (Silverman and Singer-Vine, 2016), highlighting the reputational damage that disinformation can inflict on companies if not refuted.

Brands are currently scrambling to combat fake news, as several of them have been victims of disinformation campaigns (Berthon and Pitt, 2018). After the Pepsi CEO allegedly told Trump supporters to “take their business elsewhere”, the company’s positive social brand sentiment plummeted from 72 to 4.5 per cent (Birkner, 2016). Furthermore, Pepsi faced a boycott and its stock price plunged by nearly 4 per cent after...
this incorrect quote was widely circulated on social media (Berthon and Pitt, 2018). In response to the political stance that Starbucks adopted toward undocumented students and refugees, hoaxes targeted the company by circulating rumors on Twitter that the coffee company was providing discount coupons to undocumented immigrants (Tschatschek et al., 2018). To fight the rumors, Starbucks immediately took to social media to deny this claim by directly responding to users who were sharing this false information.

Non-profit organizations, fake news and crisis management

Non-profit organizations also have been targeted by fabricated claims, especially amidst a natural disaster or conflict (International Broadcasting Trust, 2018). In the aftermath of Hurricane Harvey, a viral video on Facebook alleged that the Red Cross was tossing away donations (Snopes, 2017). Save the Children, a leading international charity that focuses on the promotion of children rights and welfare, also fell victim to unsubstantiated allegations while conducting a search and rescue operation in the Mediterranean Sea during the European migrant crisis. When the Italian news media started covering the story, far right groups attempted to stop the rescue operations that Save the Children was conducting by accusing them of collaborating with human traffickers to get refugees to shore. The Syrian Civil Defense group is another example of a humanitarian organization that has been targeted by disinformation campaigns. Also known as the White Helmets, its mission is to provide rescue services and humanitarian aid to civilians during the Syrian civil war. To discredit its work and undermine its credibility supporters of the Syrian regime launched a smear campaign, spreading bogus claims that the group was staging attacks and was linked to terrorists.

The adverse implications of fake news have triggered a burgeoning line of research that examines their consequences in diverse contexts. In the political domain, research has shown that “fake news” is used by Twitter users to discredit opposing political views and criticize information that is conveyed by individuals who support an opposition political party (Brummette et al., 2018). Another strand of literature has indicated that rumors about pressing diseases are widespread on social media, and reputable and authoritative sources such as the Centers for Disease Control and Prevention (CDC) are more successful in rebutting them (Vraga and Brode, 2017). Other scholars have studied the attributes that characterize fake news websites versus real ones (Osatuyi and Hughes, 2018) as well as the characteristics of social media audiences that are associated with fake news consumption (Nelson and Taneja, 2018). In marketing, scholars inquired about the complicated relationship between brands and fake news and provided an array of recommendations to minimize risks and protect brand image (Berthon et al., 2018; Berthon and Pitt, 2018).

The current study advances the fake news literature in two important ways. First, despite the accumulating evidence highlighting its power in various contexts, there is a scarcity of research regarding what types of strategies organizations should implement to safeguard their brands and maintain stakeholder loyalty during a fake news attack. Building on recent work on brand management and fake news in a post-rational world (Berthon et al., 2018; Berthon and Pitt, 2018), this study attempts to bridge this gap in the literature by experimentally examining how charitable organizations can protect their brand image when encountering unfounded rumors on social media. Second, within a competitive industry, the financial viability of non-profit organizations is contingent on stakeholder trust and the received donations (Swanson et al., 2007; Weerawardena et al., 2010). Maintaining a good reputation can increase stakeholder loyalty, improve economic success and elicit favorable attitudes toward charities (Lyon and Cameron, 2004). Also, a positive non-profit reputation is key for improving fundraising and garnering political support (Lee, 2003) and can boost a non-profit’s ability to recruit staff and volunteers (Hankinson, 2001). Conversely, research has shown that negative word-of-mouth (WOM) during a crisis can undermine the reputation and fundraising efforts not only of the affected non-profit but the entire sector (Williams and Burtle, 2013). As stakeholders often hold charities to higher standards than companies, a crisis can potentially threaten their survival (Sisco, 2012a, 2012b). To preserve public trust and weather a crisis event, it is suggested that non-profits should respond appropriately to the situation (Sisco, 2012a, 2012b). Nonetheless, scant attention has been given to the crisis response strategies that non-profit organizations should use during a crisis (Sisco et al., 2010; Sisco, 2012a, 2012b). As non-profits are susceptible to spurious stories, a recent report examining the impact of fake news in the charity sector underlined that charities should embrace robust communication strategies by addressing ill-intentioned rumors in a timely manner before they become a reputational risk (International Broadcasting Trust, 2018). Hence, this research adds to existing knowledge on fake news by interrogating its effects in a new context, that of non-profit crisis management.

In particular, the purpose of the present study is to empirically test our claims and provide insights to managers in the non-profit industry pertinent to the effectiveness of the crisis response strategies of denial and attack when tackling fake news on social media. Furthermore, it explores the role of personal attributes, such as need for cognition and issue involvement, when stakeholders are exposed to malicious content on social media. Guided by research in fake news, crisis communication and the Elaboration Likelihood Model (ELM), this article probes their relationship by applying and juxtaposing them in the non-profit domain. The research methods and the results sections follow. Finally, theoretical and practical implications are also discussed.

Literature review

The emerging popularity of fake news

The term fake news has become an indispensable part of our vernacular. Although its usage has spiked since the 2016 American presidential elections (Silverman, 2016), the use of misinformation and fabricated claims has had a long history. More specifically, misinformation has been repeatedly used by governments and brands as a propaganda tool to respectively manipulate public opinion and consumers (Berthon and Pitt, 2018; Burkhardt, 2017; Lazer et al., 2018). The term “fake news” has been defined in a number of ways. The Oxford Dictionary defined fake news as “false reports of events, written
and read on websites” (Oxford Learner’s Dictionaries, 2019). Other conceptualizations of fake news perceive it as “fabricated information that mimics news media content” (Lazer et al., 2018), as “false information” (Berthon and Pitt, 2018) or as “news articles that are intentionally and verifiably false, and could mislead readers” (Allcott and Gentzkow, 2017). In the crisis management literature, fake news is akin to malicious rumors and can be defined as “false and damaging information circulated about the organization” (Coombs, 2007, p. 163). An inspection of past academic studies that used the “fake news” term and were published between 2013 and 2017 produced a five-fold taxonomy of fake news types:

1. news satire;
2. news parody;
3. fabrication;
4. manipulation; and
5. advertising and propaganda (Tandoc et al., 2018).

Similar to Berthon and Pitt (2018), as well as Coombs (2007), this study operationalizes fake news as false information whose intention is to tarnish the image and reputation of a non-profit organization.

Because of the skyrocketing notoriety of fake news, a new line of research has recently begun to explore its effects from different scholarly angles. In the political realm, a study investigating fake news in the 2016 election found that pro-Trump fake news was more likely to be shared on social media than equivalent stories favoring Clinton (Allcott and Gentzkow, 2017). Another study found that fake news is a politicized term that is used by Twitter users with differing political leanings to discredit opposing claims (Brummette et al., 2018). Recent studies have also attempted to investigate fake news consumption patterns on social media before and after the 2016 presidential elections. In a comparison of fake versus real news websites, Nelson and Taneja (2018) found that individuals who are prone to visit fake news websites represent a niche audience and are heavy social media users, whereas those visiting real news websites are light social media users and represent the overwhelming majority. The same researchers provided further evidence regarding the critical role of social media in fake news propagation by demonstrating that people tend to visit fake news websites after being exposed to fake news on social networks than when encountering it on websites.

Besides politics, disinformation has historically been used in marketing as a tool that brands use to increase sales (Berthon and Pitt, 2018). For instance, companies such as Philip Morris, Coke and Pepsi have been directly sponsoring and creating fake news and “alternative” facts to confront and downplay evidence linking health problems to their products (Berthon and Pitt, 2018).

Another strand of literature investigated the influence of false rumors in the online dissemination of health-related misinformation and the use of different rebuttal mechanisms to combat them. Research by Sharma et al. (2017) explored the role of Facebook as a purveyor of health information and found that users were more likely to read or share misleading posts about the Zika virus than posts with accurate information. Further evidence was provided by Vraga and Bode (2017), who indicated that reputable sources like CDC were more effective in refuting misinformation about Zika on social media compared to social corrections; that is, other social media network users who voluntarily provide updates to refute widespread misperceptions. Previous work investigating people’s reactions when exposed to misinformation on Facebook about the health risks associated with genetically modified organisms (GMOs) emphasized the importance of correcting false claims on social media (Bode and Vraga, 2015).

Although an emerging body of research has documented the impact of fake news and malicious rumors in different realms, less is known about their effects in the non-profit sector. For example, a survey of public relations professionals suggested that rumors are prevalent within organizations and, if left unaddressed, can trigger uncertainty, acceptance and anxiety (DiFonzo and Bordia, 2000). Extending this line of research, the present study aims to further our understanding of the influence that fake news has on non-profit organizations and how the latter can mitigate its impact in online contexts. This topic demands urgent scholarly attention, as false claims and misinformation tend to be cognitively stickier; in other words, they are more persistent in human memory (Thorson, 2016).

**Crisis response strategies and fake news**

Social media platforms such as Twitter and Facebook are increasingly being used by organizations to reach their target audience, market their products, develop and strengthen connections with stakeholders and bolster their reputations (Veil et al., 2012). While social media offer varied benefits because of their open access and ease of sharing, they also can serve as conduits for sharing misleading information, rumors or hoaxes (Tambuscio et al., 2015). The pace at which malicious rumors or misleading information is going viral online is of growing concern, especially in the wake of the 2016 presidential election that ushered the term “fake news” into the present-day public lexicon (Vraga and Bode, 2017). Coombs (2007) identified rumor as a type of victim crisis, wherein the organization is perceived to be a victim of the crisis itself, rather than being the reason behind it. In the case of rumors or fake news, blame is weakly attributed to an organization, as it fell prey to a victim crisis, often well beyond its control (Coombs and Holladay, 2002). Fake news often emerges in the form of hoaxes that circulate unsubstantiated claims about an organization. For instance, a video of an altered label on a Kraft food product suggested that the company’s food contains GMO wheat (Veil et al., 2015).

Organizations may choose not to respond to fake news or rumors about them, as they know that those claims are factually incorrect and will eventually die out (DiFonzo et al., 1994; Doorley and Garcia, 2011). However, this might backfire, as: “...although managers may not believe an event or action constitutes a risk or crisis, if enough stakeholders develop a shared perspective, become concerned about the event, and communicate about it as if it is a crisis or risk, even a minor threat may evolve into a crisis (Holladay and Coombs, 2013, p. 451).

Rumors, unsubstantiated or not, can create unprecedented vulnerability for the organization (Veil et al., 2012) and its “high priority goals” (Seeger et al., 1998, p.233), highlighting the urgency for an organizational response. As a result, refutation strategies are used to lower stakeholders' beliefs toward a rumor (Bordia et al., 2000; Einwiller and Kamins, 2008; Johar et al., 2010). Communicating with stakeholders can prevent the rise of uncertainty and ambiguity that a crisis
generates (Mitroff, 2004), and this could potentially restrict the fake news from escalating into a full-blown crisis.

As every crisis situation is different, it is posited that brands should apply appropriate strategies to protect their image (Johar et al., 2010). The need to respond is particularly accentuated during more serious crises, as companies have to craft strong responses to educate consumers about the situation and demonstrate their commitment to resolve the situation (Johar et al., 2010). Nonetheless, it should be noted that each crisis type needs to be addressed, or responded to, differently. Johar et al. (2010) proposed the Crisis Communication Network which outlines the steps and corresponding response strategies (e.g. rebuttal, vilifying the accuser and polishing the halo) that companies can carry out when managing different crisis types. Relatively, Coombs’ (2007) Situational Crisis Communication Theory (SCCT) offers a framework of crisis response strategies that is appropriate for each crisis cluster – victim, accidental and preventive. Previous crisis management literature has suggested that when a company faces false allegations a rebuttal strategy is recommended (Johar et al., 2010; Koller, 1992). Rumor rebuttal is considered as the most aggressive crisis response strategy that a company can adopt, as it aims to counter the veracity of the rumor and the accuser’s credibility (Koller, 1992). For a victim type crisis that is attributed to a malicious rumor or fake news and for which the organization is not responsible, Coombs (2007) suggested the use of the denial posture which primarily comprises of two response strategies – denial and attack the accuser.

In a denial response strategy, the organization denies or rejects any responsibility for the crisis, especially when the accusation is unfounded (Coombs, 2007; Johar et al., 2010). In the case of a fake news crisis, an organization should refute the information by pointing out its lack of truthfulness and by claiming that the allegations are absurd or untrue. For instance, Kraft defended itself against the fake news about GMOs by stating that it was baseless, “Anyone implying that G.E. wheat is in Kraft Mac & Cheese or any of our products is wrong” (Strom, 2013). Kraft also provided supporting evidence by reporting that the label shared in the fake news video was from a country where the company did not sell the product.

The attacking the accuser strategy involves the organization vilifying the individual or the group who creates and/or spreads false claims (Coombs, 2007). This strategy can also include “a threat to use force (e.g. lawsuit) against the accuser” (Coombs, 2012, p.155). In case of an organizational fake news crisis, an attack response would require the organization to counterattack and confront the source behind the accusation, thus discrediting both the source and its fraudulent claim (Coombs, 2007; Johar et al., 2010). Coombs (2012, p. 72) posited that a “rumor requires a response designed to present the truth to consumers and to stop the source of the rumor”. This suggests that if organizations adopt the attack approach, then they may raise doubts in stakeholders’ minds about the veracity of the malicious claims. Attacking the accuser of falsehood puts the accuser in an unfavorable light (Benoit and Hanczor, 1994), and it consequently discredits both the accuser and hi/she/er accusations by counterbalancing them (Knight, 2011). Although it is recommended that this strategy is used during severe crises that are attributed to false accusations, it is important to note that attacking the accuser can backfire when perceived as defensive or not fair (Johar et al., 2010).

Both the denial and attack strategies aim to establish that no “real” crisis exists (Coombs, 2007). Disproving the existence of a crisis can spare an organization from reputational harm and mitigate its stakeholders’ negative attitudinal and behavioral intentions (Coombs, 2006). While previous research has examined the impact of the denial crisis response strategy, there is a dearth of literature investigating the effects of both a denial and attacking the accuser strategy (Brown and Billings, 2013). The current study aims to expand upon this research by probing which crisis response strategies resonate with stakeholders when a non-profit brand is ensnared in a fake news crisis. Broadly speaking, crisis response strategies are known to restore stakeholders’ positive assessments (Utz et al., 2013) and increase supportive behavioral intentions toward the organization (DiStaso et al., 2015). We argue that similar effects can emerge when non-profit organizations use the attack the accuser strategy over a denial strategy when involved in a fake news crisis. Adopting the attack strategy undermines the effectiveness of the accusation and, thus, can restore positive attitudes toward the organization (Benoit and Hanczor, 1994). Similarly, when stakeholders accept an organization’s attack response, the persuasiveness of the accusations and the belief in the rumors decreases (Zhang and Benoit, 2004). Based on the discussion above, the following hypotheses are proposed to demonstrate the influence of crisis response strategies:

H1. An attack response to a fake news post will lead to a) lower source credibility for the accuser and b) lower message credibility for the accuser (fake news credibility) than will a denial response.

H2. An attack response to a fake news post will lead to a) higher source credibility for the responding organization, b) higher message credibility for the responding organization and c) greater supportive intentions toward the organization than will a denial response.

With the impact of response strategies established, further analysis probes their interplay with the other variables of interest in this study such as issue involvement.

Elaboration likelihood model (ELM)

The elaboration likelihood model (ELM) is a dual process persuasion theoretical framework that has been extensively studied in diverse disciplines ranging from health communication (Jones et al., 2003) to consumer privacy concerns (Angst and Agarwal, 2009). The basic premise of ELM is that there are two distinct paths that characterize information processing and which depend on one’s involvement level (Petty and Cacioppo, 1986). The central route asserts that individuals are more attentive to the conveyed information when the issue is of high personal relevance. In other words, personal involvement in a topic is dependent on one’s personal attributes or need for cognition (NFC) (Cacioppo et al., 1984). Under the central route, individuals engage in a taxing cognitive elaboration that emphasizes information quality and argument strength. On the contrary, in the peripheral route, individuals lack motivation or are unable to process the information. Hence, heuristic cues – mechanisms
that do not involve much thinking, such as credibility – are often activated and influence information processing and message acceptance. Briefly, the peripheral route is more influential when elaboration is low.

Recent research has investigated the influence of ELM when information is presented through fake versus real websites (Osatuyi and Hughes, 2018). An analysis of the most popular posts that were distributed on various fake news sites revealed that fake posts favor low elaboration since they tend to be less text-heavy because of the lack of arguments, are more homogeneous and tend to distribute negative information compared to posts on real news sites which tend to lack sensationalism in their language. Osatuyi and Hughes (2018) argued that this is not surprising because the goal of fake news websites is to provide sensational information that is attention-grabbing and easy to comprehend by message recipients. ELM has also received some attention in the rumor rebuttal literature. For example, Bordia et al. (2005) demonstrated that high-quality denial messages can reduce beliefs in rumor and also reduce anxiety levels for high-relevance individuals. In other words, incorporating convincing arguments in a message can mitigate the effects of a rumor for people who are directly affected by it. Although the effects of ELM and issue of involvement have been comprehensively examined, little is known about their role in refuting fake news on social media in the non-profit sector. To further explore this, the following hypothesis is suggested:

\[ H3. \quad \text{An attack response to a fake news post will lead to higher information processing than will a denial response.} \]

**Issue involvement as a moderator of crisis response strategy effects**

As described in the previous section, issue involvement can trigger message elaboration and persuasion, per the Elaboration Likelihood Model (Petty and Cacioppo, 1981). In essence, issue involvement is akin to personal relevance, which is defined as “intrinsic importance, personal meaning, and consequences” (Petty and Cacioppo, 1986, p. 82). Personal attributes such as one’s needs, interests, goals and values can render an issue attractive to a person (Zaichkowsky, 1985). The degree to which individuals perceive an issue to be self-relevant will determine their involvement level with this issue.

Previous literature on consumer research postulates that consumers’ issue involvement can influence their motivation and attention to the issue. The more involved individuals are with an issue, the more likely they are to dedicate their cognitive resources toward comprehending and interpreting the issue and distributed information (Heath and Douglas, 1990; Petty and Cacioppo, 1986; Petty et al., 1983). Consequently, individuals who are attentive to a message and engage in deep information processing tend to formulate stronger attitudes and participate in subsequent behaviors such as supporting or donating (Petty and Cacioppo, 1986; Peter and Olson, 1990; Petty et al., 1983).

Crisis communication research has explored the role of consumers’ issue involvement in crisis situations as a potential moderator (Choi and Lin, 2009; Claey s and Cauberghe, 2014; Coombs and Holladay, 2005). Scholars have argued that consumer involvement with a crisis issue can elicit emotions and attribution of crisis responsibility (Folkes et al., 1987; Hallahan, 2000; McDonald and Härtel, 2000). This can subsequently influence information processing and behaviors toward the affected organization (Peter and Olson, 1990). When compared with less involved individuals, individuals who are highly involved in an organizational crisis because of personal relevance are more likely to centrally process the organization’s crisis response strategies, resulting in different perceptions of the organization (Choi and Chung, 2013; Choi and Lin, 2009; McDonald et al., 2010). Additionally, when highly involved individuals engage in central processing, this can lead to the development of counterarguments (Wright, 1974).

In the context of an organizational crisis, consumers’ involvement with an issue is contingent on their self-relevant goals, needs and beliefs (McDonald and Härtel, 2000). As not all consumers will identify a crisis as personally relevant, factors such as a brand’s response may affect their perceptions. For example, Claey s and Cauberghe (2014) investigated the moderating impact that issue involvement has on crisis response strategies. Examining the effectiveness of the SCCT guidelines, they found that the use of matching crisis response strategies can enhance an organization’s post-crisis evaluation only for highly involved individuals. This occurred because individuals with high-issue involvement (e.g., drinking water pollution in a close proximity area) were more likely to find the matching crisis response as persuasive. Similarly, when exposed to un-matched crisis responses, high-issue involvement individuals were more prone to carefully scrutinize the information contained in a message and, in turn, to develop counterarguments and negative attitudes toward the organization. In contrast, for low-issue involvement individuals for whom the issue was personally irrelevant (e.g., drinking water pollution in a distant country), the appropriateness of the adopted crisis response was inconsequential, as they peripherally processed the information.

**Issue involvement and privacy**

The issue of privacy has become more pronounced in the Internet era, as one’s personal and financial information can be easily compromised. Research on privacy information suggests that issue concern can trigger individuals to respond differently to messages. For example, Angst and Agarwal (2009) found that individuals who reported higher levels of privacy concerns over storing their health information in electronic databases were more likely to reverse their attitudes only when they were exposed to positively framed arguments. Likewise, a study investigating the role of privacy on ecommerce demonstrated that consumers with high privacy concerns developed negative behavioral intentions toward a company and were less inclined to engage in online transactions than low-privacy ones (Dinev and Hart, 2005). More recently, Akhter (2014) argued that companies need to craft appropriate strategies to reduce consumers’ privacy concerns because the latter can negatively impact their relationship with them.

On the basis of this evidence, the current study expects that individuals with high issue involvement (e.g., high privacy concerns) will process the organization’s crisis response strategies differently from those with low issue involvement (e.g., low privacy concerns) during a data privacy breach that
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allegedly affected the non-profit brand. Furthermore, it is posited that privacy concerns will affect differently one’s supportive intentions toward the non-profit. In light of the preceding discussion, the following are hypothesized:

**H4.** When exposed to a fake news story, individuals with high issue involvement will demonstrate: a) lower source credibility for the accuser and b) lower message credibility for the accuser (fake news credibility) than will low issue involvement individuals.

**H5.** When exposed to a fake news story, individuals with high issue involvement will demonstrate: a) higher source credibility for the responding organization, b) higher message credibility for the responding organization and c) greater supportive intentions toward the organization than will low issue involvement individuals.

**H6.** When exposed to a fake news story, individuals with high issue involvement will engage in higher information processing than low issue involvement individuals.

The extant literature did not offer enough support to propose hypotheses for exploring the interaction effects between issue involvement (low vs high) and response strategies (attack vs denial) on: information processing, message and source credibility and supportive intentions. Therefore, the study will explore the following question: Do individuals with varying levels of issue involvement respond differently to fake news in terms of:
- information processing;
- how they perceive an organization’s and an accuser’s message and source credibility; and
- supportive intentions when exposed to attack or denial response strategies from an organization?

**Method**

**Study design and procedure**

To test the hypotheses, a 2 (response type: denial vs attack) × 2 (privacy concerns: low vs high), between-group online experiment was conducted via Qualtrics. Response types were manipulated and privacy concerns were measured. The researchers requested from Qualtrics a representative sample reflecting the US population (e.g. gender, race and age). Demographics of participants were collected and a representative sample was confirmed.

Upon reading the study consent form and agreeing to continue, participants were asked about their privacy concerns. Then, they were randomly assigned to one of the two conditions and viewed the corresponding stimulus. As stated before, for the purposes of this study, fake news was operationalized as the circulation of malicious rumors on social media with the intent to damage a non-profit organization. Hence, the stimulus first showed the respondents a fake news social media post about the Red Cross donor database being hacked. Next, they read a rebuttal to the fake news originating from the Red Cross. The response was modeled after a number of real-world responses that the Red Cross has been posting to refute fake news, sometimes responding with a simple correction and sometimes with an aggressive accusation.

After that, participants answered the manipulation check questions and reported their attitudes about the Red Cross and its response, as well as their attitudes toward the fake news. Two attention check questions were embedded in the questionnaire. Those who failed to answer these questions correctly were excluded from the final dataset.

**Participants**

In total, 468 (N = 468) individuals participated in the experiment. The sample included 239 females (51 per cent), 228 (49 per cent) males and one person identified as “other”. The age of the participants ranged from 18 to 84 years old (M = 46.0, SD = 16.9). In all, 279 participants reported being White (60 per cent); 87 were Hispanic/Latino (19 per cent); 62 were Black/African Americans (13 per cent); 25 were Asian/Pacific Islanders (5 per cent); 11 reported more than one race (2 per cent); and 3 reported “other” as their race (1 per cent).

**Stimulus**

The stimulus used the design features of a real Facebook post with two comments below the post, one being from another user that expressed concern about the news and the other from the Red Cross responding to the fake news and the concern. In the Facebook post, the author “John Lee” claimed that the Red Cross database had been hacked, creating privacy concerns. The message included the following statement:

More problems at the Red Cross (of course). The organization’s inadequacies have been on display for ages. Now their database was hacked and their donors’ information was STOLEN! People have hundreds of dollars in fraudulent charges on their credit cards because of them! BEWARE! If you’ve donated to the Red Cross, you’re probably a victim too. They’ll tell you it’s not true, BUT IT IS. Check your bank statement. Don’t donate to the Red Cross. Their poor management practices have thousands of donors in jeopardy. See more here.

The post is followed by a link to an online “news article” titled “Red Cross Donor Database HACKED!” housed on a website with URL JohnLee.com (the name of the post author). This conforms to the definition of fake news, as the post shared a news article as support for the claim. The post appears to have received 86 likes, suggesting a somewhat broad reach.

In the stimulus, the Red Cross responded to the fake news post (and link) with a comment. Two versions of the response were created to represent the two response types – denial and attack the accuser. In the denial condition, the response stated that the information posted by the individual was not true, and the post provided additional information to refute the claim. The stimulus material was developed based on actual responses written by the Red Cross and posted on its Facebook page in response to rumors.

**Denial condition:** Hi John Lee, this claim is fabricated and not based on facts. The story about our hacked donors’ database has been widely shared and misconstrued. We assure you that the privacy of our donors has not been compromised since we protect the security of credit card transactions using a number of measures such as encryption and network firewalls. Please know that the spread of false information like this causes unnecessary panic. Continue checking with Red Cross for further updates on these rumors.

In the attack condition, the response said that the information was not true, and it accused the individual who
provided the fake news link of trying to undermine the good work of charities like the American Red Cross.

Attack condition: Hi John Lee, this claim is fabricated and not based on facts. It seems that you have been misinformed – and name-calling isn’t necessary. Please don’t indulge in spreading fabricated stories. We strongly condemn this kind of unethical behavior and the intent to sabotage our work. The countless hours spent addressing malicious falsehoods ultimately risk hurting those we’re trying to serve. Please know that the spread of false information like this causes unnecessary panic. Continue checking with the Red Cross for further updates on these rumors.

Manipulation check

A manipulation check was conducted for the two crisis response conditions: denial and attack the accuser. Individuals were asked if the response from the Red Cross was a denial of the story or a denial as well as an attack on the person who posted the story. Only these two options were offered. A chi-square analysis was conducted to evaluate if participants’ responses matched the condition. Results suggested that the manipulation was successful ($\chi^2 (1, N = 467) = 4.34, p = 0.04$).

Measurement

Privacy concerns

All questionnaire items were measured on a seven-point Likert scale. To establish issue involvement, this study measured participants’ privacy concerns in two ways. First, they were assessed with a set of measures of donor concerns adopted from Fidelity Charitable (2017), which identified a range of possible concerns, including organizational reputation and use of funds. A sample item asked about privacy: “Will the charity keep my information private and protect my data”. This measure was used to split the sample into three groups corresponding to high, medium and low privacy concerns. Only the high and low groups were retained for analysis, a common practice in social science (Gelman and Park, 2009). Although this process reduces the sample size for testing issue involvement, it allows for more accurate testing of the underlying variable – high versus low privacy concerns. Privacy concerns were also assessed after participants’ exposure to the stimulus by asking them about the measures they take to ensure privacy online. Four options were offered, including items like “changing passwords regularly” or “using secure browsing practices”. A Pearson’s bi-variate correlations was run to bolster the argument that the two measures assessed related concepts. The results showed a significant correlation ($r = 0.20, N = 464 p < 0.001$), suggesting that the measure of donor privacy concern in the pre-stimulus scale and the post-test measure of privacy behaviors are related.

An additional test was conducted to ensure that experience with the organization did not moderate the relationship between issue involvement and the outcomes. Participants were asked if they have prior experience with the Red Cross (volunteer, donor, partner, recipient of services, employee, etc.). A t-test was run to see if those with prior organizational experience differed in their issue involvement from those who had no prior organizational experience. Results suggest that there is no significant difference between the two groups ($t (198) = 1.21, p = 0.23$).

Information processing was measured by adopting nine items provided by Griffin et al. (2002). An example item included: “After I encounter information about similar situations, I am likely to stop and think about it” (Cronbach’s $\alpha = 0.87, M = 5.30, SD = 1.20$).

Accuser source credibility was assessed with measures from Bordia et al. (1998). Participants were asked to indicate how much do they believe that the accuser was credible, appropriate and honest (Cronbach’s $\alpha = 0.90, M = 3.35, SD = 1.44$).

Response source credibility was gauged by using the source credibility measures from Shen et al. (2014). Participants were asked to indicate whether they agree or disagree that the author of the response was believable and credible (Cronbach’s $\alpha = 0.93, M = 4.97, SD = 1.39$).

Fake news message credibility (accuser message credibility) and response message credibility were both measured with three items provided by Davis (1995) after appropriate modifications were implemented. A sample question asked participants to rate how well the adjective was “accurate” in describing the fake news or organizational response they viewed, with 1 being “not well at all” and 7 being “extremely well.” Fake news message credibility, Cronbach’s $\alpha = 0.93, M = 3.19, SD = 1.54$, and response message credibility, Cronbach’s $\alpha = 0.95, M = 4.81, SD = 1.41$, were highly reliable.

The mean scores, standard deviations and Cronbach’s alpha appear in Table I.

Supportive intentions were measured with eight items borrowed from Wientzcz et al. (2015). To rate their support toward Red Cross, sample items asked participants whether they would: donate, volunteer or follow the Red Cross on social media (Cronbach’s $\alpha = 0.90, M = 3.83, SD = 1.65$).

Results

The first three hypotheses proposed differences between those who were exposed to the attack response condition and those who were exposed to the denial response. A series of t-tests were run to examine if those in the attack response condition had lower source credibility for the accuser ($H1a$), lower message credibility for the accuser (fake news message credibility) ($H1b$), higher source credibility for the responding organization ($H2a$), higher message credibility for the responding organization ($H2b$), stronger supportive intentions toward the organization ($H2c$) and greater information processing ($H3$). Results of the tests can be found in Table II.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Mean</th>
<th>SD</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Accuser) Source credibility</td>
<td>3.42</td>
<td>1.35</td>
<td>0.90</td>
</tr>
<tr>
<td>(Accuser) Message credibility*</td>
<td>3.19</td>
<td>1.41</td>
<td>0.93</td>
</tr>
<tr>
<td>(Response) Source credibility</td>
<td>4.92</td>
<td>1.36</td>
<td>0.93</td>
</tr>
<tr>
<td>(Response) Message credibility</td>
<td>4.66</td>
<td>1.39</td>
<td>0.95</td>
</tr>
<tr>
<td>Supportive intentions</td>
<td>3.66</td>
<td>1.25</td>
<td>0.90</td>
</tr>
<tr>
<td>Information processing</td>
<td>5.23</td>
<td>1.25</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Note: *$p < 0.05$
The results of the $t$-tests indicated a significant difference for accuser message credibility (fake news message credibility) between participants in the denial response condition ($M = 3.33, SD = 1.54$) and those in the attack response condition ($M = 3.05, SD = 1.52$) ($t = -2.01, p < 0.05$). No significant differences were detected between the two conditions for any of the other outcomes including accuser’s source credibility ($t = -1.69, p = 0.09$), responding organization source credibility ($t = -0.02, p = 0.99$), response message credibility ($t = 0.41, p = 0.68$), supportive intentions toward the organization ($t = 0.72, p = 0.47$) and information processing ($t = 0.67, p = 0.51$). See Table II. Hence, $H1$ is partially supported; $H2$ and $H3$ were not supported.

The fourth, fifth and sixth hypotheses proposed that individuals with high issue involvement will hold different beliefs and behaviors than low issue involvement individuals. A series of $t$-tests were run to determine the relationship between involvement level and the dependent variables. Results suggested no significant differences between high issue involvement and low issue involvement individuals for accuser’s source credibility ($t = 0.78, p = 0.44$) and accuser’s message credibility ($t = 0.49, p = 0.63$). However, individuals with high issue involvement ranked four items significantly higher than did low issue involvement individuals, including responding organization source credibility ($t = -4.06, p < 0.001$), response message credibility ($t = -3.78, p < 0.001$), supportive intentions toward the organization ($t = -4.90, p < 0.001$) and information processing ($t = -8.19, p < 0.001$). As a result, $H4$ was not supported, but $H5$ and $H6$ were supported. Results of the tests can be found in Table III.

Finally, the research question asked about the interaction effects between issue involvement level and the crisis response condition. To answer this question, a series of two-way repeated measures ANOVAs were run to test for interactions between issue involvement, crisis condition and the six dependent measures. Results found a significant interaction for only one dependent variable, accuser message credibility (fake news credibility) ($F(1, 351) = 4.40, p < 0.05$). The interaction suggested that issue involvement level and crisis response type interacted with low issue involvement individuals who perceived fake news credibility as higher when exposed to an attack response. Contrarily, high issue involvement individuals perceived fake news as more credible when exposed to a denial response. Results of the tests can be found in Table IV.

### Discussion

As fake news continues to spread rapidly through online sources, non-profits need to identify best practices for responding to it in a way that dispels fabricated claims and maintains their reputation. Hence, this study examined the effectiveness of crisis response strategies during a fake news crisis. In particular, the crisis response condition (attack vs denial) made a significant difference in the way the audiences perceived fake news (accuser message credibility). Attacking the accuser rather than just denying fake news led to lower fake news message credibility. However, an interaction emerged suggesting that individuals with low involvement in privacy issues assessed the fake news message as more credible when exposed to the attack response than the denial response. This raises concerns for an organization battling fake news claims, as it appears that high-involved individuals will respond more positively to an attack response, whereas low-involved ones will develop negative reactions.

The differences in fake news credibility may be partially explained by the fact that high issue involvement leads to higher information processing. This finding aligns with prior research indicating that high issue involvement publics think more critically about information than low issue involvement ones (Petty and Cacioppo, 1986). In other words, high issue involvement individuals are more likely to process information about a crisis, and as our data suggested, this can lead to greater brand support. Low issue involvement individuals may not have enough information to make a good judgment, so they focus more on the tone of the response to draw conclusions. If they find the tone unpleasant, then they may react negatively, causing a response that works against the organization’s intentions.

In addition, high issue involvement individuals in this study valued online privacy, and they may have felt that the attack on someone spreading fake news was appropriate. On the contrary, low issue involvement publics were not as concerned about online privacy and may have perceived the attack as inappropriate, even defensive, suggesting that the organization may be hiding something. The findings contradict an earlier study indicating that individuals with high privacy concerns changed their opinions only when exposed to positively framed messages, and low privacy concern individuals were unaffected by framing (Angst and Agarwal, 2009). Nonetheless, it has been suggested that adopting an aggressive crisis response can produce negative outcomes when individuals evaluate this strategy as either unfair or defensive (Johar et al., 2010).
Table IV Two-way ANOVA results for four groupings for involvement and crisis type

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>High privacy/attack response (n = 102)</th>
<th>Low privacy/attack response (n = 82)</th>
<th>High privacy/denial response (n = 92)</th>
<th>Low privacy/denial response (n = 75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information processing</td>
<td>5.77 (1.08)</td>
<td>4.85 (1.31)</td>
<td>5.74 (0.95)</td>
<td>4.59 (1.37)</td>
</tr>
<tr>
<td>(Accuser) Source credibility</td>
<td>3.05 (1.65)</td>
<td>3.41 (1.36)</td>
<td>3.33 (1.51)</td>
<td>3.20 (1.20)</td>
</tr>
<tr>
<td>(Accuser) Message credibility</td>
<td>2.80 (1.65)</td>
<td>3.21 (1.48)</td>
<td>3.26 (1.60)</td>
<td>3.00 (1.37)</td>
</tr>
<tr>
<td>(Response) Source credibility</td>
<td>5.35 (1.45)</td>
<td>4.50 (1.40)</td>
<td>5.07 (1.53)</td>
<td>4.70 (1.27)</td>
</tr>
<tr>
<td>(Response) Message credibility</td>
<td>5.17 (1.45)</td>
<td>4.46 (1.35)</td>
<td>4.86 (1.66)</td>
<td>4.39 (1.33)</td>
</tr>
<tr>
<td>Supportive intentions</td>
<td>4.35 (1.74)</td>
<td>3.35 (1.56)</td>
<td>3.95 (1.71)</td>
<td>3.25 (1.38)</td>
</tr>
</tbody>
</table>

Notes: Information processing: F (1, 350) = 1.16, p = 0.36; (Accuser) Source credibility: F (1, 351) = 2.94, p = 0.12; (Accuser) Message credibility: F (1, 351) = 4.40, p < 0.05; (Response) Source credibility: F (1, 351) = 2.54, p = 0.11; (Response) Message credibility: F (1, 351) = 1.54, p = 0.30; Supportive intentions: F (1, 351) = 0.77, p = 0.38; Standard deviation are in parentheses. *p < 0.05

These differences may be explained by the ELM given that high issue involvement individuals have the proclivity to think more critically about an issue and reach a conclusion based on the provided evidence (Petty and Cacioppo, 1986). Conversely, our findings suggested that low issue involvement individuals use peripheral cues to make a decision and may react negatively to an attack response. Generally, the intention of an attack response is to discredit the accuser and diminish the accuser’s message credibility. The reverse effects held true for low issue involvement individuals in the context of fake news, as peripheral cues were interpreted in a way that improved the fake news credibility.

Response source credibility and response message credibility both followed a similar pattern. High issue involvement individuals who were exposed to the attack response to the fabricated claims rated the source and message credibility of the responding organization as higher than low issue involvement individuals, regardless of crisis response. In other words, compared to low privacy concern individuals, high privacy concern individuals who saw Red Cross’ attack response on the fake news source were more likely to perceive the non-profit and its response as credible. Interestingly, those with high issue involvement in the denial condition did not respond significantly differently than low issue involvement individuals to either source or message credibility, suggesting that an attack response may motivate a stronger response from high issue involvement individuals than a denial one. However, a significant difference between the two crisis responses did not emerge for response source or message credibility, thus highlighting the need for more research to explore credibility and issue involvement in fake news contexts.

High issue involvement individuals were more likely to engage in supportive intentions, including donating to and volunteering for the organization or liking the organization’s social media pages. This intention did not change regardless of the used crisis response. High issue involvement groups may react less to the approach (denial or attack) that an organization takes to fake news and focus more on the evidence that it provides in its defense. In this study, the high issue involvement group appeared to approve the responses and indicated greater support for the organization. Future research should investigate how using inappropriate fake news response strategies could impact high issue involvement individuals’ supportive intentions.

No significant differences emerged for assessments of the accuser’s source credibility (author of the fake news Facebook post). Neither issue involvement nor the crisis response affected the outcome, suggesting that participants did not change their opinions about the fake news source in view of Red Cross’ two different rebuttal messages or their own involvement in privacy issues.

Implications

The findings of this study entail both theoretical and practical implications about refuting fabricated information on social media. Previous published work examined the role of fake news as well as misinformation mainly in the realms of political and health communication (Allcott and Gentzkow, 2017; Bode and Vraga, 2015). The present study is the first to present evidence on how non-profit organizations should strategically engage with stakeholders on social media to contain their effects when targeted with fake news involving consumer data privacy. Furthermore, our paper answers the call for implementing technical solutions to target fake news by providing empirical evidence (Berthon et al., 2018; Berthon and Pitt, 2018).

Theoretically, this study describes the cognitive pathways through which different crisis response strategies function when non-profit organizations respond to misleading posts on Facebook. Our findings showed that adopting the strategy of denial is effective in reducing fake news credibility only for low-involvement stakeholders, whereas high issue involvement individuals prefer the attack response. It appears that for individuals who are attentive to online privacy issues the organization is justified when embracing a more aggressive response toward the source of fake news.

Our findings also advance theory in ELM and issue involvement in a crisis context (Claeys and Cauberghe, 2014; Coombs and Holladay, 2005) by showing that stakeholders develop different cognitive reactions when confronted with fake news on social media. Most notably, significant differences were found in terms of how one’s privacy concerns affect online information processing by demonstrating that highly involved stakeholders are more inclined to be supportive of the non-profit when the latter is a victim of a fake news attack. The findings highlight the importance of issue involvement and online consumer privacy (Barnes, 2006; Kietzmann et al., 2011) by demonstrating that individuals respond to spurious
stories differently depending on their previous experiences with privacy issues. In other words, this study suggested that when online stakeholders are concerned about the diffusion and protection of information online they demonstrate an elevated motivation to process information when encountering an uncertain situation involving social media rumors.

This study also extends the literature on source credibility and online rumors (Vraga and Bode, 2017) by examining them at the interplay of fake news in a non-profit setting. Specifically, the study adds to the ongoing research regarding fake news by finding that low-privacy individuals developed lower evaluations toward the credibility of the fake news when they viewed the denial message than the attack message.

Practically speaking, this study highlights the different cognitive processes involved when individuals encounter fake news on social media. Given that our data indicated that high-involvement individuals are more likely to centrally process information and, in turn, register higher supportive intentions toward the affected brand, it is suggested that non-profit organizations should address false accusations on social media in a timely manner. This is critical because many constituents involved with non-profits may already be following those organizations on social media, and thus, if false allegations are not addressed, then this might influence their attitudes and behaviors.

These findings reinforce the importance of segmenting audiences and understanding their motivations and personal concerns. Non-profit organizations (and other organizations) already communicate to audience segments in different ways. For example, non-profits communicate to major donors differently from annual donors (Waters, 2010). In the event of tackling fake news and rumors, these organizations also need to consider the level of issue involvement that their audiences experience. Fake news can range broadly from privacy issues, to financial issues, to problems with services (and much more). As such, brand managers should consider the degree to which their audiences are invested in the issue of a crisis attributed to fake news before developing a crisis response.

An important question left unanswered by this study is how to respond when both high and low involvement audience members are reading the same message on a social media page. Current tools limit an organization’s ability to customize messages for different groups when responding to the same content online. Instead, organizations may need to weigh the importance of different audience segments. In many cases, audiences with high involvement in a relevant issue are more valuable to an organization’s mission; therefore, the organization may wish to respond in a way that meets the needs of the high involvement audiences. However, in other situations, the non-profit may have multiple means of communicating with high involvement audiences, and it may choose to respond in social media in a way that best resonates with low involvement audiences.

In summary, this study provides insights into the crisis response strategies that non-profit brands should use during a social media crisis involving fake news. The data showed that adopting an attack strategy was more effective for highly-involved stakeholders. However, an attack message might not resonate with low-involved individuals, as it can increase the credibility of the accuser’s message. On the whole, it is recommended that non-profit organizations consider their audience’s level of issue involvement before deciding whether to deny or attack in their response.

Limitations

Although this research produced some intriguing findings, there are several limitations that should be mentioned. One limitation is that this study focused on a single real-life non-profit organization, that is, the American Red Cross. Participants may have had preexisting attitudes toward this non-profit, which may have confounded our findings. Hence, we suggest that future research should replicate this study by either examining how individuals react to various crisis response strategies adopted by other non-profit organizations and/or by extending this line of research to other sectors as well.

Another limitation pertains to the research design of this study, as participants were exposed to only one hypothetical scenario wherein the Red Cross was accused of failing to protect its donors’ privacy during a data breach. This was a realistic scenario, but future work could also investigate the effects of different crisis response strategies by having the fake news scenario involve other topics, such as financial mismanagement or sexual harassment allegations. Another drawback concerns the narrow scope of this study and the limited measures that were used. Specifically, this study aimed to explore the impact of different crisis response strategies on information processing, belief in rumor, source and message credibility and supportive intentions toward the non-profit organization.

Conclusion

In conclusion, our study contributes new evidence regarding the impact of different crisis response strategies on consumer perceptions and reactions to fake news stories. As fake news continues to be a challenge for non-profits and businesses, this study offers insight into the ways issue involvement among consumers can influence their responses to a crisis. The study makes important theoretical and practical contributions by exploring potential crisis response strategies that non-profit brands can use to tackle fake news on social media. As the data implied, an aggressive rebuttal message is perceived favorably by high involved individuals, whereas such responses enhance the credibility of the false information for low involved individuals. Future research could benefit by examining other variables to get a more holistic understanding of the implications of different crisis types. In addition, assessing various levels of involvement could help clarify how the interactions between issue involvement and crisis response affect audience perceptions and behavioral intentions.

References

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About the authors

Michail Vafeiadis (PhD, Penn State University) is an Assistant Professor of public relations in the School of Communication and Journalism at Auburn University. He received his BA and MA in political science from Suffolk University in Massachusetts and his MA in journalism from Emerson College. His research interests focus primarily in the areas of persuasion, reputation and relationship management and the strategic use of social media in public relations and advertising. His work has been published in the Journal of Nonprofit & Public Sector Marketing, Journal of Broadcasting and Electronic Media, Public Relations Review and Journal of Promotion Management. Michail Vafeiadis is the corresponding author and can be contacted at: mzv0042@auburn.edu

Denise S. Bortree (PhD, University of Florida) is an Associate Professor in the Donald P. Bellisario College of Communications at Penn State University and director of the Arthur W. Page Center for Integrity in Public Communication. Her research addresses issues related to sustainability, public relations and nonprofit communication. She has published more than 30 peer-reviewed articles in journals such as Journal of Nonprofit & Public Sector Marketing, Journal of Public Relations Research, Public Relations Review, Nonprofit Management and Leadership and Mass Communication & Society. She has coedited two books, one on environmental communication and one on public relations ethics.

Christen Buckley is a Masters student in the Media Studies program in the Donald P. Bellisario College of Communications at Penn State University. Her research interests lie primarily in public relations, non-profit communication and communication technology. Her work has been presented at the International Communication Association (ICA), Association for Education in Journalism and Mass Communication (AEJMC) and the ACM CHI Conference on Human Factors in Computing Systems.

Pratiti Diddi is a Doctoral student at Penn State University. She has a Masters in Mass Communication from Louisiana State University. Her primary research interests focus on the intersection of public relations, strategic communication and social media. Specifically, her research examines the impact
that various message design strategies have in the domains of health and crisis communication. She is also interested in investigating how strategic messages on social media can affect public reactions toward an organization during a crisis.

**Anli Xiao** (PhD, Penn State University) is an Assistant Professor of public relations at Texas A&M, Corpus Christi. Her research interests include non-profit public relations and international strategic communication. Her research also explores strategic communication in the contexts of native advertising and fake news. Dr Xiao’s research has been published in journals including *Public Relations Review*, *Journal of Promotion Management*, *Public Relations Journal*, *Asian Journal of Public Relations*, *Computers in Human Behavior* and *American Behavioral Scientist*. 